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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,621	03/12/2001	Serge Willenegger	QCPA363DIVC1	3167
23696 7590 08/28/2007 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			EXAMINER WILSON, ROBERT W	
			ART UNIT 2616	PAPER NUMBER
			NOTIFICATION DATE 08/28/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

09/804,621

Applicant(s)

WILLENEGGER ET AL.

Examiner

Robert W. Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 8/7/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14 and 17-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14 and 17-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. The finality of the office action has been withdrawn.

### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 14, 17-29 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 3-5 of U.S. Patent No. 5,991,284

Referring to claim 14, claims 3 & 4 of U.S. Patent No.: 5,991, 284 teaches: receiving (receiver); adjusting (adjusting); comparing (comparator); and frame error rate (frame error rate)

In addition U.S. Patent No.: 5,991,284 teaches:

Regarding claim 17, claim 5 of U.S. Patent No.: 5,991,284 teaches: plurality of quality thresholds

Regarding claim 18, claim 3 message bits are inherent in command word

Regarding claim 19, claim 3, plurality of gain values inherently associated with plurality of subchannels

Regarding claim 20, claim 3, decoding (demod inherently decodes).

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Referring to claim 21, claims 3 & 4 of U.S. Patent No.: 5,991, 284 teaches: receiver (receiver); threshold generator (threshold generator) comparator (comparator); and messaging generator (message generator)

In addition U.S. Patent No.: 5,991,284 teaches:

Regarding claim 22, claim 5 of U.S. Patent No.: 5,991,284 teaches: plurality of quality thresholds

Regarding claim 23, claim 3 message bits are inherent in command word

Regarding claim 24, claim 3, decoding (demod inherently decodes).

Referring to claim 25, claims 3 & 4 of U.S. Patent No.: 5,991, 284 teach: means for receiving (receiver); means for providing a frame error threshold (threshold generator) means for comparing (comparator); and means for generating a message (message generator)

In addition U.S. Patent No.: 5,991,284 teaches:

Regarding claim 26, claim 5 of U.S. Patent No.: 5,991,284 teaches: means for generating a plurality of quality threshold (plurality of quality thresholds)

Regarding claim 27, claim 3 means for generating a plurality of bits (message bits are inherent in command word)

Regarding claim 28, claim 3 means for decoding (demod inherently decodes).

Referring to claim 29, claims 3 & 4 of U.S. Patent No.: 5,991, 284 teaches: receiver has inherent antenna; receiver (receiver); threshold generator (threshold generator); comparator (comparator); and messaging generator (message generator)

4. Claims 14, 17-29 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 & 2 of U.S. Patent No. 6,240,071 in view of Raith (U.S. Patent No.: 5,903,706)

Referring to claim 14, claims 1 of U.S. Patent No.: 6,240,071 teaches: receiving (receiver means; adjusting (message generator means sends for adjusting); comparing (quality measurement means inherently compares (comparator);

U.S. Patent No.: 6,240,071 does not expressly call for: :Frame Error Rate

Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of U.S. Patent No.: 6,240,071 because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel

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In addition U.S. Patent No.: 6,240,071 teaches:

Regarding claim 17, claim 14 of U.S. Patent No.: 6,240,071 teaches: inherent plurality of quality thresholds in order to measure quality on a subchannel

Regarding claim 18, claim 1 message bits are inherent in power control word

Regarding claim 19, claim 1, plurality of gain values inherently associated with plurality of subchannels

Regarding claim 20, claim 3, decoding (modulator requires demod inherently in order to decode).

Referring to claim 21, claims 1 of U.S. Patent No.: 6,240,071 teaches: receiver (means for receiving); threshold generator (quality measurement means has inherent threshold generator) comparator (quality measurement means has comparator); and messaging generator (message generator means)

U.S. Patent No.: 6,240,071 does not expressly call for: Frame Error Rate

Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement)

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of U.S. Patent No.: 6,240,071 because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel

In addition U.S. Patent No.: 6,240,071 teaches:

Regarding claim 22, claim 1 of U.S. Patent No.: 6,240,071 teaches: inherent plurality of quality thresholds in order to make quality measurement.

Regarding claim 23, claim 1 message bits are inherent in power control word

Regarding claim 24, claim 2, decoding (modulator requires inverse of demod in order to decode)

Referring to claim 25, claim 1 of U.S. Patent No.: 6,240,071 teach: means for receiving (receiver); means for providing a threshold (inherent in quality measurement means) means for comparing (inherent in quality measurement means); and means for generating a message (message generator)

U.S. Patent No.: 6,240,071 does not expressly call for: Frame Error Rate

Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement)

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of U.S. Patent No.: 6,240,071 because both

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FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel

In addition U.S. Patent No.: 6,240,071 teaches:

Regarding claim 26, claim 1 of U.S. Patent No.: 6,240,071 teaches: means for generating a plurality of quality threshold (inherent plurality of quality thresholds in order to make quality measurement).

Regarding claim 27, claim 1 of U.S. Patent No.: 6,240,071 teaches: means for generating a plurality of bits (message bits are inherent in power control word

Regarding claim 28, claim 2 of U.S. Patent No.: 6,240,071 teaches means for decoding (modulator requires inverse of demod in order to decodes).

Referring to claim 29, claims 1 of U.S. Patent No.: 6,240,071 teaches: receiver has inherent antenna; receiver (means for receiving); threshold generator (quality measurement means has inherent threshold generator) comparator (quality measurement means has comparator); and messaging generator (message generator means)

U.S. Patent No.: 6,240,071 does not expressly call for: Frame Error Rate

Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of U.S. Patent No.: 6,240,071 because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel

### ***Claim Rejections - 35 USC § 103***

5. Claims 14 & 17-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Walton (U.S. Patent No: 5,621,723) further in view of Raith (U.S. Patent No.: 5,930,706)

Referring to claim 14, Walton teaches: a method in a base station (Base Station per col. 6 line 45 to col. 7 lines 20)

Receiving a reverse link signal from a remote station wherein said reverse link signal comprises a plurality of subchannels (The base station receives reverse channel slot signals or subchannels from a mobile (remote station) per col. 3 line 15 line 67 and per col. 6 lines 45 to 67)

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Adjusting independently transmit power of one or more of said plurality of subchannel signals by generating a power control message for adjusting the transmit power of at least one of said plurality of subchannel signals (The base station sends power control bits or power control message based upon the comparison per col. 6 lines 45 to 67) and

Comparing a frame error rate of each of said subchannel signals with a frame error rate threshold for said generating said power control message (The base station compares the power to at least one threshold for the subchannel per col. 6 lines 45 to 67)

Walton does not expressly call for: Frame Error Rate

Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement)

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel

Referring to claim 18, the combination of Walton and Raith teach: the method as recited in claim 14 and Walton teaches further comprising generating a plurality of quality threshold values corresponding to said plurality of subchannel in accordance with measured power for each of said subchannel signals per col. 3 line 16 to col. 4 line 45 and per col. 6 line 46 to col. 7 line 20

Walton does not expressly call for: Frame Error Rate

Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement)

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel.

In addition Walton teaches.

Regarding claim 19, generating a plurality of gain values and applying each gain value to one of said plurality of signal to adjust the transmit power of said subchannel signals (plurality of bits wherein each bit inherently corresponds to a command to increase or decrease the transmit of the transmit power of one of the subchannels by a predetermined amount col. 6 lines 45 to 67.

Referring to claim 20, the combination of Walton and Raith teach: the method as recited in claim 14 and Walton teaches: further comprising decoding each of said corresponding subchannel signals and determining frame error in said subchannel signals ( The base station has inherent decoder for decoding corresponding subchannels and determining the signals power per col. 3 line 16 to col. 4 line 45 and per col. 6 line 46 to col. 7 line 20)

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Walton does not expressly call for: Frame Error Rate

Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement)

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel

Referring to claim 21, Walton teaches: An apparatus for wireless communication (Base Station per col. 6 line 45 to col. 7 lines 20)

A receiver configured to receive a reverse link signal that comprises a plurality of subchannel signals (The base station has an inherent receiver which receives at least two reverse channel slot signals or subchannels and measures the power per col. 3 line 15 line 67 and per col. 6 lines 45 to 67)

A threshold generator configured to provide a frame error rate threshold for at least one of the subchannels (The base station generates a threshold for measuring the power from a subchannel per col. 6 lines 45 to 67)

A comparator configured to compare a frame error rate of at least one of the subchannel with a threshold for that subchannel signal ( The base station compares the power to at least one threshold for the subchannel per col. 6 lines 45 to 67)

A message generator configured to adjust independently transmit power of one or more of the plurality of subchannel signals by generating a power control message based on the comparison (The base station sends power control bits or power control message based upon the comparison per col. 6 lines 45 to 67)

Referring to claim 22 the combination of Walton and Raith teach: the method as recited in claim 22 and Walton teaches a message generator is configured to generate a plurality of quality threshold values corresponding to the plurality of subchannel in accordance with a measured signal power for each subchannel per col. 3 line 16 to col. 4 line 45 and per col. 6 line 46 to col. 7 line 20

Walton does not expressly call for: Frame Error Rate

Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement)

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel.



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In addition Walton teaches:

Regarding claim 23, wherein the message generator is configured to generate at least a plurality of bits wherein each bit inherently corresponds to a command to increase or decrease the transmit of the transmit power of one of the subchannels by a predetermined amount col. 6 lines 45 to 67.

Referring to claim 24, the combination of Walton and Raith teach: The apparatus for wireless communication of claim 21, Walton teaches: further comprising a decoder configured to decode each of the subchannel signal from the received reverse link signal (The base station has inherent decoder to decode the received reverse link signals per col. 6 lines 45 to 67 and wherein the comparator is configured to calculated the reverse link received power per col. 6 lines 45 to 67

Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel.

Referring to claim 25, Walton teaches: An apparatus for wireless communication (Base Station per col. 6 line 45 to col. 7 lines 20)

means for receiving a reverse link signal that comprises a plurality of subchannel signals (The base station has an inherent receiver or means which receives at least two reverse channel slot signals or subchannels and measures the power per col. 3 line 15 line 67 and per col. 6 lines 45 to 67)

means for providing a frame error rate threshold for at least one of the subchannel signals (The base station has a measure for measuring the power from a subchannel relative to a threshold or means per col. 6 lines 45 to 67)

means for comparing a frame error rate of at least one of the subchannel signals with the rhesold for that subchannel signal (The base station compares the power to at least one threshold for the subchannel or means per col. 6 lines 45 to 67)

means for adjusting independently transmit power of one or more of the plurality of subchannel signals by generating a power control message based on the comparison (The base station sends power control bits or power control message based upon the comparison for independently adjusting the power on one ore more of the plurality of subchannels or means per col. 6 lines 45 to 67)

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Walton does not expressly call for: Frame Error Rate

Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement)

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel.

Referring to claim 26 the combination of Walton and Raith teach: the apparatus for wireless communication of claim 26 and Walton further comprising means for generating a plurality of quality threshold values corresponding to the plurality of subchannel in accordance with the measured signal power for each of the subchannel signals per col. 3 line 16 to col. 4 line 45 and per col. 6 line 46 to col. 7 line 20

Walton does not expressly call for: Frame Error Rate

Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement)

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel.

In addition Walton teaches:

Regarding claim 27, further comprising means for generating at least a plurality of bits inherently corresponds to a command to increase or decrease the transmit of the transmit power of one of the subchannels by a predetermined amount col. 6 lines 45 to 67.

Referring to claim 28, the combination of Walton and Raith teach: The apparatus for wireless communication of claim 26, Walton teaches: further comprising a means for decoding each of the subchannel signals from the received reverse link signal and means for calculating the signal power in each of the subchannel signals (The base station has inherent decoder or means to decode the received reverse link signals per col. 6 lines 45 to 67 and wherein the comparator or means is configured to calculate the reverse link received power per col. 6 lines 45 to 67

Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement)

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel.

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Referring to claim 29, Walton teaches: A Base station (Base Station per col. 6 line 45 to col. 7 lines 20) comprising

An antenna (Base Station per Figures 1 and Figures 2 has inherent antenna)

A receiver configured to receive a reverse link signal that comprises a plurality of subchannel signals (The base station has an inherent receiver which receives at least two reverse channel slot signals or subchannels and measures the power per col. 3 line 15 line 67 and per col. 6 lines 45 to 67)

A threshold generator configured to provide a frame error rate threshold for at least one of the subchannels (The base station generates a threshold for measuring the power from a subchannel per col. 6 lines 45 to 67)

A comparator configured to compare a frame error rate of at least one of the subchannel with a threshold for that subchannel signal ( The base station compares the power to at least one threshold for the subchannel per col. 6 lines 45 to 67)

A message generator configured to adjust independently transmit power of one or more of the plurality of subchannel signals by generating a power control message based on the comparison (The base station sends power control bits or power control message based upon the comparison per col. 6 lines 45 to 67)

***Response to Amendment***

6. Applicant's arguments with respect to claims 14 & 17-29 have been considered but are moot in view of the new ground(s) of rejection.

The examiner respectfully disagrees with the applicant's argument that Walton does not teach: measuring of power on a plurality of subchannels and comparing the value against a threshold. Walton teaches measuring power on a plurality slots within the reverse link by the base station or subchannels relative to a plurality of thresholds per col. 3 line 15 line 67 and per col. 6 lines 45 to 67. Walton does not expressly call for: Frame Error Rate. Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton because both FER and signal power

Both Raith and Walton have effective filing dates prior to 2/13/1997; consequently, applicant arguments are not persuasive.

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*Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571/272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Robert W Wilson  
Examiner  
Art Unit 2616

8/20/07  
RWW